

519,804

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number  
**WO 2004/006835 A2**

(51) International Patent Classification<sup>7</sup>: **A61K**

University, 3400 N. Charles Street, Baltimore, MD 21218 (US). **McFADDEN, Jill, M.** [US/US]; The Johns Hopkins University, Department of Chemistry, 3400 Charles Street, Baltimore, MD 21218 (US).

(21) International Application Number:  
PCT/US2003/020960

(22) International Filing Date: 1 July 2003 (01.07.2003)

(74) Agents: **STIEFEL, Maurice, B.** et al.; Bryan Cave LLP, 1290 Avenue of the Americas, New York, NY 10167 (US).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/392,809 1 July 2002 (01.07.2002) US

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicants (*for all designated States except US*): **FAS-GEN, LLC.** [US/US]; Baview Medical Campus, 5210 Eastern Avenue, Baltimore, MD 21224 (US). **THE JOHNS HOPKINS UNIVERSITY** [US/US]; 4910 Eastern Avenue, Baltimore, MD 21224 (US).

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

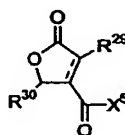
(75) Inventors/Applicants (*for US only*): **KUHADJA, Francis, P.** [US/US]; Johns Hopkins Medical Center, 4940 Eastern Avenue, Baltimore, MD 21224 (US). **MEDGHALCHI, Susan, M.** [US/US]; Fasgen, Inc., Alpha Center, Johns Hopkins Bayview Research, 5210 Eastern Avenue, Baltimore, MD 21224 (US). **THUPARI, Jagan, N.** [US/US]; Department of Pathology, Johns Hopkins Bayview Research Campus, 5210 Eastern Avenue, Baltimore, MD 21224 (US). **TOWNSEND, Craig, A.** [US/US]; Department of Chemistry, Johns Hopkins

#### Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NOVEL COMPOUNDS, PHARMACEUTICAL COMPOSITIONS CONTAINING SAME, AND METHODS OF USE FOR SAME



(IX)

(57) Abstract: Pharmaceutical composition comprising a pharmaceutical diluent and a compound of formula IX: R<sup>29</sup> = H, or C<sub>1</sub>-C<sub>20</sub> alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, =CHR<sup>31</sup>, -C(O)OR<sup>31</sup>, -C(O)R<sup>31</sup>, -CH<sub>2</sub>C(O)OR<sup>31</sup>, CH<sub>2</sub>C(O)NHR<sup>31</sup>, where R<sup>31</sup> is H or C<sub>1</sub>-C<sub>10</sub> alkyl, cycloalkyl, or alkenyl; R<sup>30</sup> = C<sub>1</sub>-C<sub>20</sub> alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl; X<sup>5</sup> = -OR<sup>32</sup>, or NHR<sup>32</sup>, where R<sup>32</sup> is H, C<sub>1</sub>-C<sub>20</sub> alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, the R<sup>32</sup> group optionally containing a carbonyl group, a carboxyl group, a carboxamide group, an alcohol group, or an ether group, the R<sup>32</sup> group further optionally containing one or more halogen atoms; with the proviso that when R<sup>29</sup> is =CH<sub>2</sub>, then X<sup>5</sup> is not OH. Also disclosed are compounds within the scope of the formula IX, as well as uses of the pharmaceutical compositions for weight loss, anti-microbial and anti-cancer applications, inhibition of fatty acid synthase and neuropeptide-Y, and the stimulation of the activity of carnitine palmitoyl transferase-1.

WO 2004/006835 A2